

# **MEETING SUMMARY NOTES**

## **Cost Savings and Efficiency Work Group**

*December 18, 2002*

*Conference Room 113, County-City Building*

**MEMBERS PRESENT:** Russ Bayer, Carol Brown, Jerry Schleich, Jennifer Brinkman, Mark Brohman, Brian Carstens, Mark Hunzeker, Roger Reynolds, Duane Eitel, Rick Krueger, Greg MacLean, Melinda Pearson, Greg Wood and Patte Newman, Allan Abbott (non voting); Absent: Duane Hartman and Jon Carlson

**OTHERS:** Kent Morgan, Steve Masters, Randy Hoskins, Nick McElvain, Randy Wilson, Karl Frederickson, Gary Brandt, Marvin Krout, Roger Figard, Karen Jensen, Jean Walker

### **AGENDA ITEMS DISCUSSION:**

#### **1. Welcome - Russ Bayer, Work Group & Committee TriChair**

Russ Bayer opened the meeting at 7:30 a.m.

#### **2. Meeting Summary Notes - December 10, 2002**

There were no changes or corrections made to the meeting summary notes for the meeting held on December 10, 2002.

#### **3. Public Comment Period**

There were no public comments.

#### **4. Olsson Associates Handouts**

The group received the handouts of some work that Olsson Associates had put together for the Finance Work Group. Kent Morgan explained that Roger Severin had asked his staff to go to some websites and talk to some communities of comparable size to look at funding options. This information was assembled for the Finance Work Group and Mr. Morgan thought it might be of benefit to this group. Allan Abbott cautioned that the footnotes be read carefully.

## **5. Work-in Progress 12 Year Capital Program for City**

Kent Morgan explained that this same presentation has been given to the Finance Work Group, mapping out what development and improvements look like over the next 12 years if the funding for the projects is on the plate. The two maps represent the “base line” and “Category 5” alternatives. Category 5 is a little more aggressive. The maps show the areas in the Comprehensive Plan where we are trying to provide infrastructure with time for water and wastewater facilities to be provided to those sites. The purpose is to develop benchmarks of the different improvements needed to service those areas and establish timelines.

Steve Masters and Gary Brandt of Wastewater discussed the Wastewater assumptions, pointing out that the dollar assumptions are not inflated nor have these projects gone through a technical feasibility or constructability analysis.

Gary Brandt went over the projected Wastewater Revenues and Expenditures. The “base level projections” are based upon the extended CIP and attempts to move the projects up. The major differences between “base level projections” and the “Category 5 projections” include moving the Salt Valley area from year 5 to year 3; the work in Stevens Creek is moved up; upper Beal Slough is moved from years 1 and 3 and years 1 and 5 to years 1 and 2 and years 1 and 4. Nothing has been moved at the two treatment facilities (Theresa Street and Northeast). We are in regulatory mode there. New NPDES permits will be issued in the first quarter of 2003. Lincoln is on an extended permit basis for approximately 10 years. Those two treatment plants have a five-year compliance schedule—we must have both treatment facilities on line within 5 years from date of issuance of the permit. There is a difference of 106 million and 110 million from base level to category 5. Total bottom line is 56 million vs. 52 million--about a 4 million dollar swing to do the category 5. Abbott clarified that there are treatment plant costs in years 7 to 12 as well as years 1 through 6. This was done because it is possible to stage those over the two 6 year periods instead of throwing all the money into the first 6 years. Brandt indicated that they do continue to look at the phasing, with the goal being to keep the facilities in compliance.

On the revenue side, years 1 through 6 include the balance that we now have in the first six years (as of end of FY 8/31/02). The revenue bonds intended to be issued with the current rates are not shown. Revenue money from impact fees has been included. Taking a look at the past years, we expanded by about 5% each year--3.5 % of that was inflation – we took inflation out since we took it out of the improvements. Approximately 35 million of the 119 million was carryover.

Rick Krueger inquired as to the maximum amount that could be bonded at this point in time. Morgan advised that this is still being analyzed by the Finance Group.

Krueger noted the 4 million dollar difference between Category 5 and base level and wondered how much more ground the Category 5 opens up for sewer. Abbott indicated that there would be no additional land. It is the same amount of area, but opens it up 2 years sooner. Morgan clarified that we are only doing Priority Area A of the Comprehensive Plan. Abbott commented

that the staff realizes that the world doesn't stop after the 12<sup>th</sup> year. The second half of the 12 year period could change. The next treatment plant can be phased.

Melinda Pearson inquired as to where the average daily per capita flow assumptions at 113 gpd comes from. Brandt stated that all of the projections are based upon historical data from the City of Lincoln. Pearson further inquired as to how this compare to other cities. Can we plan with the 113 gpd? Brandt stated that the city has been tracking this for probably 30-40 years. In recent years, you will see basic residential water use on somewhat of a decline, but the wastewater has stayed about even. It has shown some reduction and this may be due to the recent dry periods. This number is from our historical data, taken over a broad 15-20 years. Earlier in the projections, they were higher. This also includes an allowance because we have sanitary sewers and sump pumps hooked to sanitary sewer and that water enters the system. There are also some allowances for things like infiltration and inflow during wet weather.

Masters commented that during heavy rainfall periods over a 12-year cycle, Lincoln's peak average day is higher than most communities. Pearson wants to know what this number is for Omaha. Abbott pointed out that Omaha has some combined sewers which will make a difference. Pearson wondered if there might be another city that is more comparable than Omaha. Brandt offered to get numbers from communities that have similar systems.

Greg MacLean offered that most states require 150 gallons for planning purposes. You have to replace every sewer in town to get that number to go down. It is not realistic to expect it to go down. Most cities have higher numbers.

Bayer summarized that for the next 12 years we have expenses of 338 million. So, as we look at a starting number for wastewater it is 338 million to take care of the day-to-day operations for the next 12 years in today's dollars.

Brandt noted that the wastewater assumptions were based on the Comprehensive Plan. We have set the system up for gravity flow; there is no anticipation of any lift stations, except for the existing 14 lift stations maintained in the community.

Krueger inquired as to how many acres is going to be served in the new area. Wilson stated that Salt Valley is being designed for 23,000 total acres, 13,000 of which are new. He did not know the Stevens Creek number. Morgan recalled that Stevens Creek was roughly 17 to 18 square miles. Wilson further clarified that this is historical information and the flows and loading rates have been projected at 1.5% growth per year. It has been split between Theresa Street and Northeast. Trunk Sewers/sanitary sewers are designed for 50-100 year life. For evaluating the sub-basin, we have used \$860 to \$870 an acre equaling \$452,000. The existing system is adequate for 12 years.

The projections reflect expansion of the two existing treatment plants. There is no thought for a future third treatment plant. We need to meet the project flows and organic loads at each of those facilities. To meet the new regulations, in the first part of the year, there would be plan to update Theresa Street in the neighborhood of a 12 million gpd expansion. That will take us to 15-20 years. The Northeast plant will be upgraded to a 6 million gpd expansion within that 12 year period.

With regard to the NPDES permit limits, the intent is to protect the environment and Salt Creek aquatic life. There may be interest from the state on a flow variable permit to allow higher flow conditions. Some odor control is being done at both facilities. The cost of new treatment capacity is \$1.90 per million gallons. Abbott pointed out that the flows and seasons have resulted in an 8-10 million dollar reduction in the cost of expanding the plant. Mark Brohman inquired as to the cost associated with research and development for the odor control. Brandt believes that it is somewhere between 4-5 million to start. We have gone through an odor control study recently. It is a phased program. Odor is a perception. Even if we go through the program, you may still have an odor situation. Part of the problem that has been occurring recently is because all of these improvements require shutting down various tanking units and restarting. This has an effect on the odor. Odor control chemicals are used at both facilities.

Masters pointed out that in order to make the improvements at the two treatment plants, the phasing involves transferring some of the flow from the Northeast plant to Theresa Street and creates some problems in the wet weather season. He also pointed out that we do not have the ability to build all of those projects with the contractors here in Lincoln so contractors will be brought in from outside of Lincoln to build those projects.

Nick McElvain of Lincoln Water System reviewed the water revenues and expenditures, which are comparable to wastewater in that to go to Category 5 it only moves 3-4 million from the second six years into the first six years, so the total is the same. The Category 5 revenues are just short of 300 million. Operating expenses are just short of 250 million. Capital projects are shown at 155 million, which leaves about 100 million in the gap. Abbott pointed out that 18.7 million dollars of bonds have already been issued and that does not carry over.

McElvain pointed out that there is about a 300' grade elevation difference across the city. If we were to provide enough pressure to serve southeast Lincoln in one pressure system, it would blow every pipe in Downtown Lincoln out of the ground. The map shows four different color shades of low duty, high duty, southeast, and Belmont. The water comes into Lincoln and is pumped up to the northwest, then up to the southeast, up again with the 84<sup>th</sup> station to Vintage Heights and the 84<sup>th</sup> & Hwy 2 shipping area. A pump station was added by the Fallbrook development. So we went from four pressure districts to six this past two years. Almost ½ of our improvements for the next 12 years are not anywhere on the map. They are at Ashland and the pipe line getting it to Lincoln. In the early 90's we built part of the pipeline from Ashland to Lincoln and stopped at Greenwood, which got us 10 million gallons of capacity. We have to finish that pipe in the next 6 years to meet the growing demands of the city. The pump stations that were built cost about ½ million dollars to serve about a 4 square mile area as interim

solutions.

McElvain went on to state that the Lincoln Water System assumptions are taken from the master planning effort. Our average residential water use is 93 gpppd (gallons per person per day). That is down 10% over the last 10 years. If you take the whole system's average and divide by the population (including commercial, industrial and institutional uses), you get to 160 gallons per capita per day. 1/4 of that is outdoor water use, thus 120 gpcpd would be the non irrigation uses.

With regard to the peaking factor return ratio, McElvain suggested that once every 12 years we could expect to have a shortage in the system somewhere, based on demands and seasonable peaks. Right now our average day is around 40 million—that would make our peak day just over 100 million. The state health standards are used for design purposes. The design materials used in Lincoln's system are built to last 100 years. All of the facilities at Ashland were designed to 100 million gallons per day capacity. The only part shorter than that is the transmission to Lincoln. We always design our system for firm capacity with the largest component out of service. We still need to meet the maximum day and maximum hour requirements. We assume the Antelope Valley well field is not a viable long term solution. Our ability to pump out of there has decreased considerably because of leaky underground fuel storage tanks that have caused problems with some of the wells. Each pumping station has a different design parameter because of how many times we have to pump the water to get it to the upper reaches.

With regard to storage and maximum hour demands, the reservoirs are 60-70 feet high and the water rises and falls as the customer demands increase. The reservoirs meet the peak hours.

The cost of \$6.90 per foot per inch diameter used in our planning efforts is based on experience. Some projects will run less than that and some will run more.

The water main replacement costs start at \$90 per foot for residential areas and go up when the water mains are near arterials.

The improvements shown are for additional filters to the plants that have been built.

The major components of the 12-year plan for supply, transmission, etc. are set forth on the handout.

Krueger noted the numbers per mile for the Yankee Hill main and wondered whether that assumes any developer contribution. Abbott stated that the projections and assumptions are "total cost". Krueger wondered about the contribution from the development community toward these costs. He thinks we should quantify what is being done currently because the developer is making contributions towards the improvements. Morgan indicated that the Finance Group is trying to look at this issue.

Brandt noted that the 8" size to sanitary sewer mains has been left out. Abbott clarified that

these projections do not include what the developer has to pay for a subdivision.

McElvain clarified that the two new pumps at 2.7 million are being added inside the building at the Northeast facility.

Pearson wondered whether we are treating for atrazine. McElvain confirmed that we are treating for atrazine. Our ozone system decreases atrazine. We met the standards and we are treating for it.

Schleich believes that the point about showing the developer contribution is important. Abbott pointed out that the total cost does not include those 8" or 6" lines provided by the developer. Schleich suggested that the gap is going to be reduced by the amount of money the developer contributes now. Aren't these numbers being forced high? Abbott stated that if we are talking about existing signed agreements, such as the 8" portion of the trunk sewer, those contributions are not in here. We have substituted impact fees for those contributions. The 741 million does not include the 6" lines and 8" lines within the subdivision for which the developer pays and has always paid. Morgan pointed out that those are never included in the CIP, either.

Krueger noted that when he developed 27<sup>th</sup> & Pine Lake Road, the developer paid for all the water lines. Abbott stated, "that is past—that is not what this is based upon." Bayer noted 741 million in expenses projected over the next 12 years for water and wastewater, and that does not include any developer "costs" for putting pipes in a development. The assumption is that that will all be paid by the developer. Krueger does not believe that is correct. Morgan offered and suggested to explore this issue further later. Bayer suggested that if the group believes that it is incorrect to the point that it will reduce the expenses, then it is an issue and should be added to the list.

Randy Hoskins of Engineering Services handed out Project Specific Summaries for the various roadway projects, including the first phase breakdown for Antelope Valley, the East Beltway, the South Beltway, Street Operations and Maintenance (snow plowing, pot hole patching, mowing, etc.); Arterial and Residential Rehabilitation, committed projects; and the new Comprehensive Plan roadway projects. He also submitted a breakdown of all projects showing both the uses and the sources of money.

Hoskins pointed out that the difference in streets between the base level and Category 5 is about 25 million dollars (3 projects). The roadways called for in the Comprehensive Plan have been shown at the full buildout in 2025. The 2+1 suburban arterial will have capacity of 12,000 vehicles per day. The Comprehensive Plan is based on the assumption that the South Beltway will be constructed; Antelope Valley will be constructed; and then later on the East Beltway. The 25 million moves into the first six years as opposed to the second six years. This has been designed and planned around national standards that are in place.

Abbott suggested that this group needs to help by providing a recommendation as to how we can combine the three major construction components.

Hoskins noted that the phasing shown is based on serving the areas that wastewater is going to get into with streets in the same timeframe; however, we do not believe we can get these streets designed and built in order to meet what wastewater is proposing. Abbott stated that the staff is looking for this committee to help determine what can and cannot be deferred.

Schleich wondered whether there is any possibility that there is any cost efficiency by going to Category 5 and combining them. Is there no efficiency in building sooner other than inflation? Abbott believes that there could be some efficiency by combining water, sewer, etc., in the same area at the same time. We have not had the opportunity to do that for this size of problem.

Hunzeker inquired whether the traffic model trip generations have been run on these projections. Hoskins indicated that they have. This street system assumes what is built in the year 2025. The Comprehensive Plan assumes a progression of development. Hunzeker then asked how much land is assumed to be utilized at 25 years out. Morgan stated that the assumption is the Future Service Limit in 2025. That doesn't mean that every single parcel of ground will have a house or a business. Some of the areas will not be built out 100%. We don't have enough households to fill in the entire area at 100%. Hunzeker believes the question is: When talking about a 12 year program, what are we really assuming in terms of households and trip generation and how much of this program is going to be necessary to accommodate? Abbott's response was that when designing a roadway, you project traffic 20 years in the future and that's the cross-section you build. If we built a street at year 2025, we look at the population that is going to be there in 2045, and that's the standard you use to design the streets. Morgan noted that in Stevens Creek, part is shown as 4 lane and part as 2 lane because there won't be as much development in 2025 in the 2 lane area.

Hunzeker commented then that you don't necessarily build a street for 25 years out as shown by the map. At the time the 2-lane section is built, you are still not going to be 25 years hence. Abbott suggested that to be a phasing decision. You plan for it and that's the costs that are included, projecting those costs of what is going to be needed by 2025. We have taken into account that aspect of phasing. If this committee gets into it, we may have to bite the bullet and defer some of the projects to bring the gap down, but let's defer the right ones and in a fashion that does not cause a great deal of cost when you come back and do the second stage.

Pearson thought she understood that the areas would be built out in 2025. Morgan indicated that the goal is to have utilities into those areas so that those lots can be sold within the next 12 years. In order to do that, you have to have sewer, water and streets. What do the streets look like? Abbott pointed out that the cinnamon-colored area on the map assumes buildout within 25 years; the red area is not built out; but the traffic within the cinnamon area should be 4 lanes in that period of time and the red area could be 3 or 2+1 in that period.

But, Hunzeker noted that the projected cost is based on 12 years--not 25 years. Figard offered that any road built in the next 12 years has to have a 20-year traffic horizon to get the federal funding. If you can split things into several categories, we assume all that land could be annexed and available for growth but it will not be totally populated and not all the roads will have

maximum trips. As that land comes in, the water, sewer and road trips will change in the future.

Krueger recently heard Rich Ruby, the District Engineer for Lancaster County, indicate that the South Beltway would not get started in years 1-6. Abbott has investigated and believes Mr. Ruby was in error. The South Beltway will be started in 2004.

## **6. Work Group Workshop Update:**

Karen Jensen submitted handouts, including a “*Summary of Process Discussions and Decisions*” which she developed from the meeting held on December 10, 2002. There will be some process definitions for this group to develop, but the group did come up with four categories of a successful outcome of working together. The emphasis is on making good decisions as a group. Jensen also distributed a proposed process for the decision-making to be done in a rational, linear way, but also in an intuitive way. She suggested that the single most significant thing that be done is to suspend judgment at the very beginning. Jensen observed that, given recent events, this group is analyzing information and needing to make decisions in an extremely highly politicized atmosphere, and this fact needs to be acknowledged. At first, that sounds like a negative, but what it really means is people with strongly held views care passionately about this city and its future. From her viewpoint, she would rather see passionately held views than a lot of milk toast citizens who care less. We are going to be able to tap into our strong values, desires and beliefs and combine them with the essence of good group process—that you are getting substantial information and the opportunity to analyze it openly and freely. Let’s take this responsibility somewhat out of the political arena and do what this committee’s charge is for the future of Lincoln.

Jensen then began reviewing the “*Steps of Process*”. The group has not yet defined “efficiency” and that’s going to lead to the kinds of criteria that will be used to evaluate the proposals and ideas. Jensen suggested that between meetings, by email or by phone, she might attempt to get some of the group members’ ideas on the criteria and defining efficiency.

Step 3 suggests identifying additional people in the community to add to the brainstorm list. The more brainstormed ideas we can have, the better.

Step 4 involves the January 7<sup>th</sup> meeting (and there is a January 14<sup>th</sup> meeting) where the group will narrow down the list of ideas and prioritize before going into the workshop. We will do the ½ day workshop on January 15<sup>th</sup>. We will try to begin setting some preliminary priorities on January 7<sup>th</sup>. This group will meet again on January 21<sup>st</sup> and 23<sup>rd</sup>. Bayer expressed concern that the January 15<sup>th</sup> Workshop may not be enough and there may be a need for a second workshop before the open house at the end of the month.

Jensen proposed that the group be thinking about different ways to categorize the brainstorm list of ideas. When applying criteria, you need to make sure your categories are apples and oranges versus apples and entrees. We want the categories to make sense and she’s not there yet. These handouts are just ideas at this point.



7. **Other Business**: None.

8. **Adjournment**

Chair Bayer adjourned the meeting at 9:00 a.m.

The next meeting of the Cost Savings and Efficiency Work Group will be held on Tuesday, January 7, 2003, at 4:00 p.m.

Respectfully submitted,

Jean Walker, Administrative Officer  
Planning Department

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